

## 9 <u>CLAIMS</u>

- 1. Apparatus for preparing a signal, which has been received at a wireless communications device, to be processed by a receiver which will attempt to recover information conveyed by the signal, the apparatus comprising filtering means for filtering the signal in a digital form having samples appearing at a sample rate and adaption means for adjusting the sample rate, wherein the filtering means is capable of filtering the signal in a first manner which is required when the receiver is of a first type and in a second manner which is required when the receiver is of a second type, the adaption means is arranged to perform adjustments to the sample rate when the receiver is of the second and not the first type and the adjustments comprise altering the sample rate before the signal is filtered to permit the filtering means to perform filtering in the second manner and altering the sample rate after the signal has been filtered to provide the signal with a sample rate required by the second type of receiver.
- Apparatus according to claim 1, wherein the filtering means comprises an FIR filter
  with adjustable tap coefficients which can be adjusted to allow the filter to perform
  filtering in the first manner and in the second manner.
- 3. Apparatus according to claim 1 or 2, wherein the filtering means is arranged to correct errors introduced by the adaption means.
- 4. Apparatus according to claim 1, 2 or 3, wherein the first type of receiver is a receiver operating according to a 3G telecommunications standard and comprising a rake receiver for operating on the signal and the second type of receiver is a receiver operating according to a 2G telecommunications standard and comprising an equaliser for operating on the signal.
- 5. A participant for a wireless communications network, the participant comprising the apparatus of any one of claims 1 to 4.

WO 2004/054124

- 6. A mixed signal section for a participant for a wireless communications network, the mixed signal section comprising the apparatus of any one of claims 1 to 4.
- 7. A method of preparing a signal, which has been received at a wireless-communications device, to be processed by a receiver which will attempt to recover information conveyed by the signal, the method comprising filtering the signal in a digital form having samples appearing at a sample rate using a filtering means capable of filtering the signal in a first manner when the receiver is of a first type and in a second manner when the receiver is of a second type and making sample rate adjustments to the signal when filtering is to be performed in the second manner but not when filtering is to be performed in the first manner, wherein said adjustments comprise adjusting the sample rate before the signal is filtered to permit the filtering means to perform filtering in the second manner and adjusting the sample rate after the signal has been filtered to provide the signal with a sample rate required by the second type of receiver.
- 8. A method according to claim 7, wherein the filtering means comprises an FIR filter with adjustable tap coefficients which can be adjusted to allow the filter to perform filtering in the first manner and in the second manner.
- 9. A method according to claim 7 or 8, wherein the first type of receiver is a receiver operating according to a 3G telecommunications standard and comprising a rake receiver for operating on the signal and the second type of receiver is a receiver operating according to a 2G telecommunications standard and comprising an equaliser for operating on the signal.
- 10. A method of conditioning received communications signals, the method being substantially as hereinbefore described with reference to Figures 1 to 3.
- 11. Apparatus for conditioning received communications signals, the apparatus being substantially as hereinbefore described with reference to Figures 1 to 3.